

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

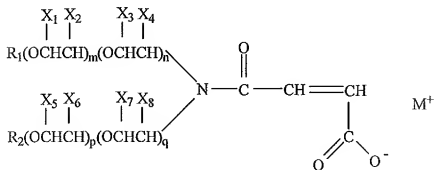
Listing of Claims:

What is claimed is:

1) (Currently Amended) A composition of matter useful as a detergent which comprises:

a) a first component which is a polymer that is formed from the co-polymerization of:

i) a first monomer having the structure:



in which R₁ and R₂ are each independently selected from the group consisting of: hydrogen, and any C₁ to C₂₄ hydrocarbyl group; X₁, X₂, X₃, X₄, X₅, X₆, X₇, X₈ in each occurrence are each independently selected from the group consisting of: hydrogen, ethyl, and methyl; M⁺ is selected from the

group consisting of: hydrogen, alkali metal ions, an alkaline earth metal ions, ammonium ions, alkyl-substituted ammonium ions, and hydroxyalkyl-substituted ammonium ions; m, n, p, q are each independently any integer in the range of between 0 and about 50, including 0 and 50, subject to the proviso that at least one of m, n, p, q are not zero; and

ii) a second monomer, which is an ethylenically-unsaturated monomer; and
b) one or more second component(s) useful in formulating soaps, cleaning compositions, hard surface cleaners, and laundry detergents, ~~selected from the group consisting of: fatty acids, esters, alkyl-sulfates, alkanolamines, amine oxides, alkali carbonates, water, ethanol, isopropanol, pine oil, sodium chloride, citric acid, citrates, cationic surfactants, anionic surfactants, non-ionic surfactants, nitriloacetic acid, sodium silicate, polymers, alcohol alkoxylates, zeolites, alkali sulfates, hydrotropes, dyes, fragrances, preservatives, polyacrylates, essential oils, alkali hydroxides, alkylaromatic sulfonates, ether sulfates, alkylphenol alkoxylates, fatty acid amides, alpha-olefin sulfonates, alkylbenzene sulfonates, paraffin sulfonates, betaines, chelating agents, tallowamine ethoxylates, polyetheramine ethoxylates, ethylene oxide/propylene oxide block copolymers, alcohol ethylene oxide/propylene oxide low-foam surfactants, glycols, ethers, methyl ester sulfonates, alkyl polysaccharides, N-methyl glucamides, alkylated sulfonated diphenyl oxide, and polyethylene glycols.~~

2) (Original) A composition according to claim 1 wherein the weight average molecular weight of said polymer is any value in the range of between about 3,000 and 100,000.

3) (Original) A composition according to claim 1 further comprising an effective amount of water for dissolving said polymer, so as to provide an aqueous solution comprising said polymer.

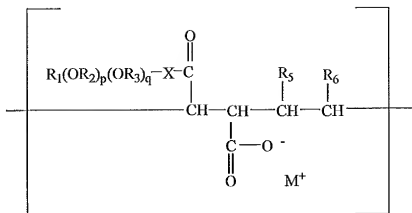
4) (Original) An aqueous solution according to claim 3 wherein said polymer is present in any amount between about 0.1 and about 10 % by weight based on the total weight of said solution.

5) (Original) A composition according to claim 3 wherein $p=0$, $q=0$, $n=0$, m is about 3, R_2 is hydrogen; R_1 is any C_8 to C_{20} hydrocarbyl group; and at least one of X_1 , X_2 , X_3 , or X_4 is hydrogen.

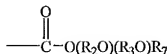
6) (Original) A composition according to claim 1 wherein said ethylenically-unsaturated monomer is selected from the group consisting of: acrylic acid, methacrylic acid, acrylamide, styrene, alpha-methylstyrene, butyl acrylate, and ethylhexyl acrylate.

7) (Currently Amended) A composition useful as a detergent which comprises:

- a) a polymer having a weight-average molecular weight of any value in the range of between about 3,000 to 100,000, which polymer includes in its structure a plurality of units described by the formula:



in which X is selected from the group consisting of: oxygen and $-\text{NR}_4-$, the sum of p and q is any value between about 1 and about 100, including 1 and 100, wherein R₁ is independently selected from the group consisting of: hydrogen, and any C₁ to C₂₀ hydrocarbonyl group; R₂ and R₃ may each be the same or different, and when the same they are selected from the group consisting of: any C₁ to C₆ alkyl group, and when R₂ and R₃ are different they are each independently selected from the group consisting of: any C₁ to C₆ alkyl group; R₄ is independently selected from the group consisting of: hydrogen, and any C₁ to C₆ alkyl group; R₅ and R₆ are each independently selected from the group consisting of: H, $-\text{CN}$, $-\text{CONH}_2$ (amide), $-\text{COOR}_7$ (ester), $-\text{CO}_2\text{H}$, $-\text{COO}^-$, and



in which R₇ is selected from the group consisting of: hydrogen, methyl, and ethyl; and wherein n is sufficient to yield a weight average molecular weight of said polymer of any value in the range of between about 3,000 and 100,000, including salts thereof; M⁺ is selected from the group consisting of: hydrogen, alkali metal ions, an alkaline earth metal

ions, ammonium ions, alkyl-substituted ammonium ions, and hydroxyalkyl-substituted ammonium ions; and

b) at least one material useful in formulating soaps, cleaning compositions, hard surface cleaners, and laundry detergents, ~~selected from the group consisting of: fatty acids, esters, alkyl sulfates, alkanolamines, amine oxides, alkali carbonates, water, ethanol, isopropanol, pine oil, sodium chloride, citric acid, citrates, cationic surfactants, anionic surfactants, non-ionic surfactants, nitriloacetic acid, sodium silicate, polymers, alcohol alkoxyates, zeolites, alkali sulfates, hydrotropes, dyes, fragrances, preservatives, polyacrylates, essential oils, alkali hydroxides, alkylaromatic sulfonates, ether sulfates, alkylphenol alkoxyates, fatty acid amides, alpha olefin sulfonates, alkylbenzene sulfonates, paraffin sulfonates, betaines, chelating agents, tallowamine ethoxylates, polyetheramine ethoxylates, ethylene oxide/propylene oxide block copolymers, alcohol ethylene oxide/propylene oxide low foam surfactants, glycols, alkylene glycols, polyalkylene glycols, ethers, methyl ester sulfonates, alkyl polysaccharides, N-methyl glucamides, alkylated sulfonated diphenyl oxide, and polyethylene glycols.~~

8) (Original) A composition according to claim 7 further comprising an effective amount of water for dissolving said polymer, so as to provide an aqueous solution comprising said polymer.

9) (Original) An aqueous solution according to claim 8 wherein said polymer is present in any amount between about 0.1 and about 10 % by weight based on the total weight of said solution.